

Work Order ID 80160

80160

Page 1

February-13-12 8:56:02 AM

Item ID: D2891-1 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: 2.25 Support
 Start Date: 13/02/2012 Start Qty: 20.00 *20* Cust Item ID:
 Required Date: 26/03/2012 Req'd Qty: 20.00 *20* Customer:
 Reference:

Approvals: Process Plan: M.L.J Date: 12/02/13 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2891	B

100	HAAS CNC VERTICAL MACHINING #1	0.00							
100									
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1-Machine as per Folio FA046 2-Deburr								

12-03-18 (X20)

110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.00							
Quality Control									

12-03-18 (X20)

120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.00							
Quality Control									

20 12-03-18 (X20)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

80160

Page 2

N900040100

Setup Start *NS1*

Stop *NS2*

20

Cust Item ID:

20

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

130

0.00

130

HandFXtube

Memo

0.00

Hand Finishing Crosstubes

Per note 8 on page 1 of dwg D2891, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg.
24H of cure time.

AL 12 - 3 - 21 (20)

140

QC3- Inspect Part Finish

0.00

140

OC

Memo

0.00

Quality Control

12.03.22 (20)

170

Identify as per dwg & Stock Location: LG 52 0.00

0.00

170

Packaging

Memo

0.00

Packaging

As 12 - 3 - 22 (20)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 80160***80160***

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February-13-12 8:56:02 AM

Item ID: D2891-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: 2.25 Support
Start Date: 13/02/2012 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 26/03/2012 Req'd Qty: 20.00 ***20*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

12/3/23

12-03-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-13-12 8:56:06 AM

Page 1

Work Order ID: 80160

80160

Parent Item: D2891-1

D2891-1

Parent Item Name: 2.25 Support

Start Date: 13/02/2012

Required Date: 26/03/2012

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP C02.11.26Added P/OKJ

IPP D 08.03.19 Re-format EC verified: DD

IPP Rev:E

11.08.04 as per dwg rev.B DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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DSK076

Manufactured

No

110

Each

3.0000

0.5

10

DSK076

77192 x 7

**

85 12.03.17

D2891-1 TURNING DETAIL

Location

Loc Qty

Loc Code

MAT

-7

72677

3

x3

MAT050

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	00160
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A1	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.190	.190	.190	.190	.190
AB	0.240	0.260		.250	.250	.248	.255	.251
AC	0.115	0.150		.128	.128	.126	.126	.127
AD	0.040	0.060		.048	.047	.053	.051	.049
AE	0.010	0.020		.012	.012	.012	.012	.012
AF	0.240	0.260		.250	.250	.250	.248	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.140	.139	.140	.141	.138
AI	0.454	0.474		.462	.463	.464	.464	.464
AJ	2.779	2.789		2.783	2.783	2.782	2.784	2.783
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.030	1.033	1.038	1.036	1.041
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.260	.260	.260	.260	.260
AO	1.663	1.683		1.678	1.675	1.674	1.676	1.672
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: <i>TS</i>	Date: 12-03-18
Audited by: <i>SE</i>	Date: 12/03/20
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	00160
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	20
HAAS Section								
AA	0.188	0.193	190	.190	.190	.190	.190	.190
AB	0.240	0.260		.251	.251	.251	.251	.252
AC	0.115	0.150		.127	.128	.128	.127	.127
AD	0.040	0.060		.052	.053	.049	.051	.050
AE	0.010	0.020		.012	.012	.012	.012	.012
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.140	.140	.140	.141	.142
AI	0.454	0.474		.464	.466	.466	.458	.460
AJ	2.779	2.789		2.783	2.783	2.782	2.785	2.783
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.032	1.036	1.034	1.036	1.038
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.260	.260	.260	.260	.260
AO	1.663	1.683		1.675	1.678	1.679	1.676	1.676
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: RT Date: 12 03 18

Audited by: JK Date: 12/03/20

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order:	00160
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891	Rev: A1	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

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AA	0.188	0.193		.190	.190	.190	.190	.193
AB	0.240	0.260		.250	.250	.251	.253	.251
AC	0.115	0.150		.127	.127	.127	.126	.127
AD	0.040	0.060		.051	.051	.051	.051	.051
AE	0.010	0.020		.012	.012	.012	.012	.012
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.140	.141	.144	.140	.141
AI	0.454	0.474		.463	.463	.461	.459	.457
AJ	2.779	2.789		2.785	2.782	2.783	2.782	2.785
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.036	1.037	1.037	1.034	1.035
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.260	.260	.260	.260	.260
AO	1.663	1.683		1.680	1.680	1.678	1.680	1.679
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
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AT								
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Measured by: Date: 12-03-18

Audited by: Date: 12/03/20

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DART AEROSPACE LTD		Work Order:	00160
Description: Ø2.250 Support		Part Number:	D2891-1
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AE	0.010	0.020		.012	.012	.012	.012	.012
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.139	.141	.141	.141	.141
AI	0.454	0.474		.457	.459	.456	.458	.457
AJ	2.779	2.789		2.785	2.782	2.783	2.782	2.782
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.035	1.038	1.036	1.032	1.030
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.260	.260	.260	.260	.260
AO	1.663	1.683		1.679	1.677	1.678	1.678	1.678
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: *RT* Date: 12-03-18

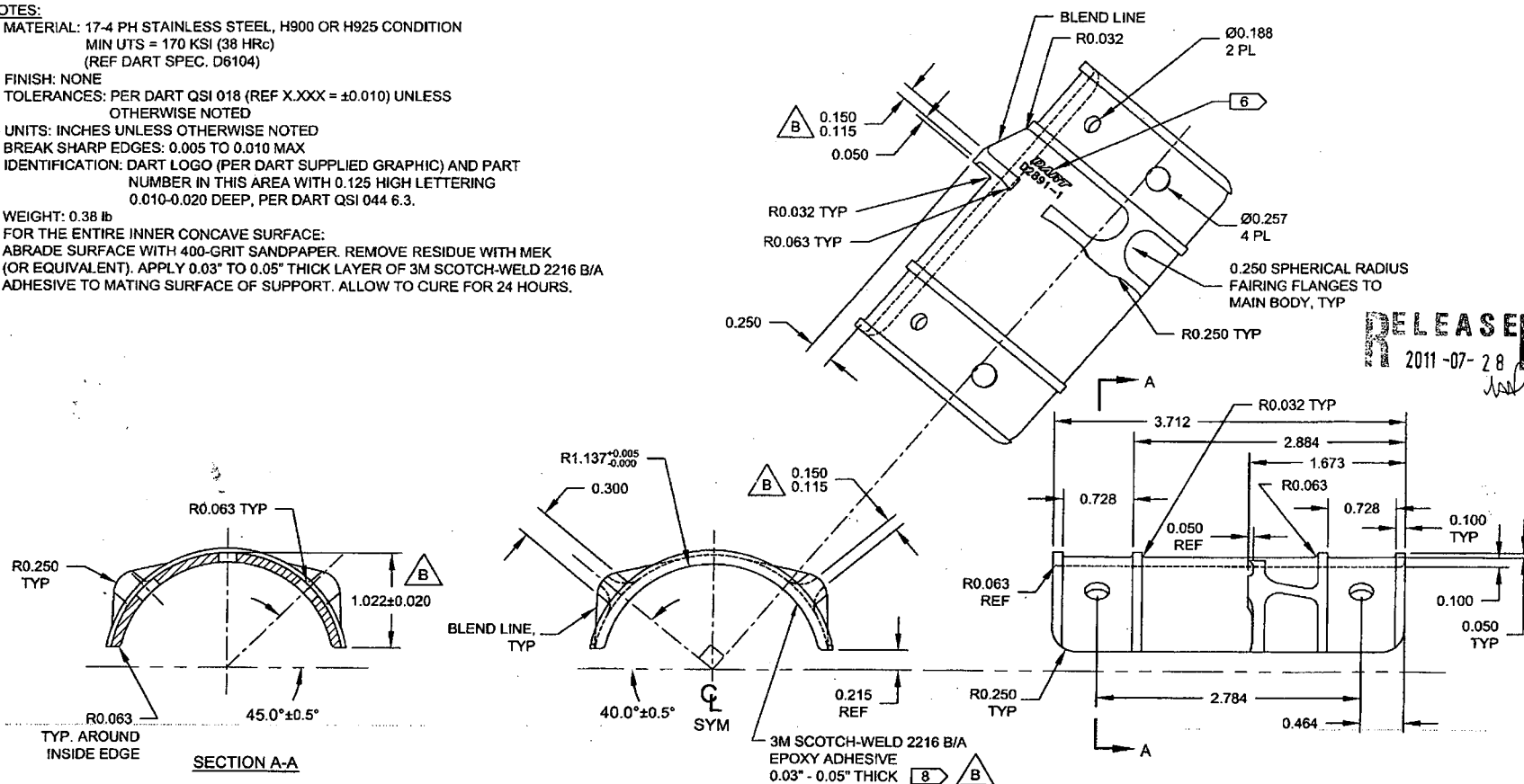
Audited by: *BR* Date: 12-03-18

Prototype Approval: Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRC)
(REF DART SPEC. D6104)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ± 0.010) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING
0.010-0.020 DEEP, PER DART QSI 044 6.3.
- 7) WEIGHT: 0.38 lb
- 8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.



D2891-1 SUPPORT

B	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION, UPDATE TOLERANCE (ZIN D4-1.84-1, B6-1)	CP	11.07.15
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D2891
REV. B
SHEET 1 OF 1
TITLE Ø2.250 SUPPORT
SCALE NTS

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80160 H.L.J.
12/02/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries